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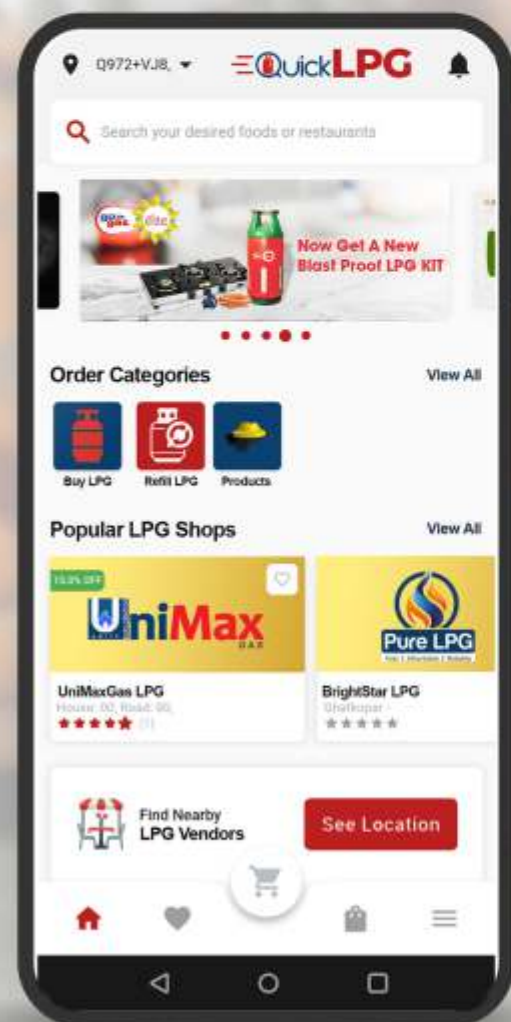


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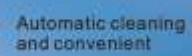
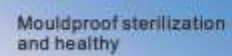
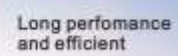
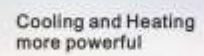


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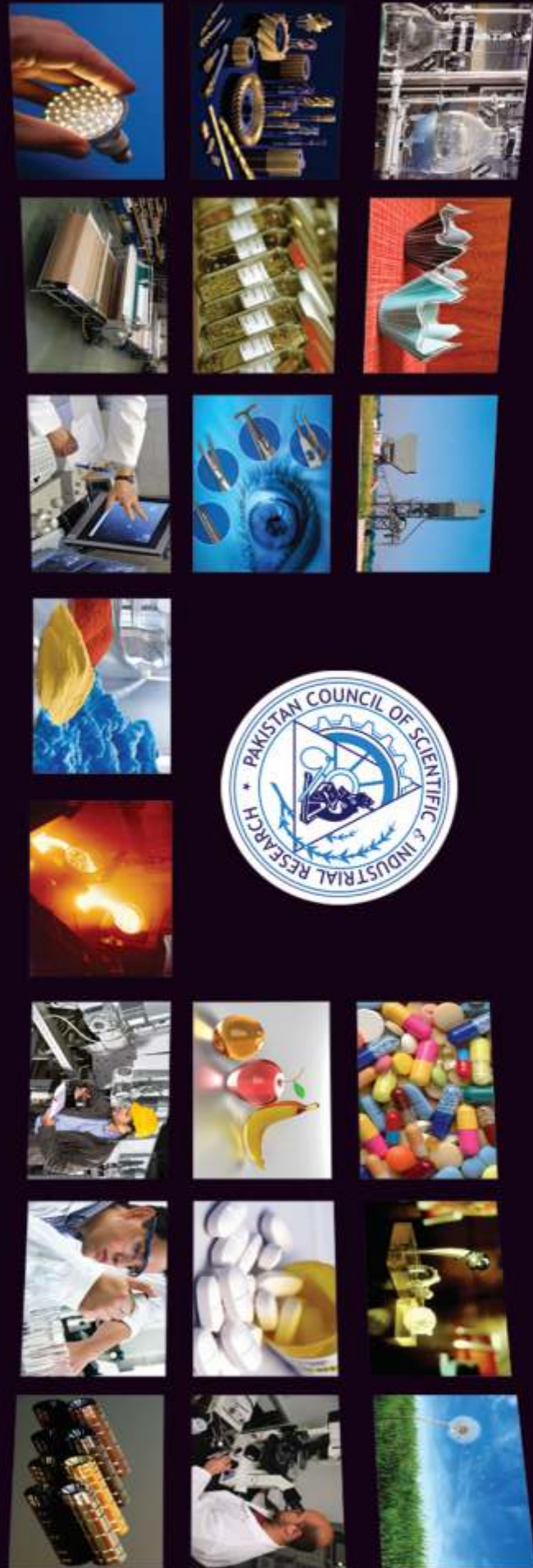
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 +92-021-36811199
Email
 coordination@lucky-renewables.com

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EDITORIAL

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Executive Editor:	Shahid A. Khan
Editor:	M. S. Shahab
Consulting Editor:	Saima Khan
GM Marketing:	Sajid Qureshi (0300-4360147)
GM Operations:	Sofia Farid
Head of Design:	Zeeshan Mazher (0333-4609840)
Design Assistant:	Ramisha Khan
Media Photographer:	Muhammad Ibrahim (0330-6472147)
Media Correspondent:	Maryam Haroon
Production/Circulation:	Waqas Mazher

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Published by: Shahid A. Khan, Global Pakistan, Lahore
 Suite No 413-414, 4th Floor, Century Tower, Main Boulevard Gulberg Lahore
 Telephone: +92-42-35913835-36 Fax: +92-42-35913850
 Email: editor@technobizmag.biz, info@technobizmag.biz, marketing@technobizmag.biz

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Rivers of Conflict: Why Water Could Ignite the Next Indo-Pak War

The subcontinent's most precious resource is under threat, not from drought alone, but from geopolitics. The longstanding water conflict between India and Pakistan, rooted in the partition of 1947, continues to loom large over regional peace. The Indus Waters Treaty (IWT), once hailed as a beacon of cooperation, is now struggling to withstand the pressure of population growth, climate change, and increasing political hostility.

Brokered by the World Bank in 1960, the IWT divided the rivers of the Indus basin between the two nations: India received the eastern rivers, Ravi, Beas, and Sutlej, while Pakistan was granted rights to the western rivers, Indus, Jhelum, and Chenab. India was allowed limited non-consumptive use of the western rivers, including for hydroelectric power. For decades, this treaty managed to prevent major escalation over water, even surviving three wars between the nuclear-armed neighbors.

But this uneasy balance is crumbling. Pakistan repeatedly accuses India of violating the treaty by constructing dams and altering river flows. Projects like the Kishenganga and Ratle Hydroelectric Plants have sparked legal battles at international arbitration forums. India, in turn, defends its right to develop its share of the rivers and accuses Pakistan of obstructing progress by politicizing technical issues.

The heart of the problem lies in mistrust. While the treaty includes mechanisms for dispute resolution, they are slow and often fail to address deeper political animosities. This mistrust is magnified by the high stakes: for both nations, water is the lifeblood of agriculture. In Pakistan, farming employs nearly 40% of the population and contributes about a quarter of GDP. India, too, relies on the Indus system to sustain livelihoods in several northern states.

Water scarcity is already severe in Pakistan, driven by mismanagement, aging infrastructure, and reduced glacier melt due to climate change. Any perceived reduction in river flows can quickly escalate into a national crisis. India, though better equipped with water infrastructure, faces inter-state water disputes and similar agricultural pressures. The risk of destabilization is real and growing.

Beyond agriculture, water shortages directly impact energy production, particularly in Pakistan, where hydropower is a major electricity source. Blackouts, rising energy costs, and disrupted urban water supplies are becoming more frequent. And when India, following the 2019 Pulwama attack, threatened to "maximize" use of its eastern rivers, the message was clear, water can be weaponized.

Pakistan called this move "water terrorism," a term reflecting how vital—and vulnerable—this resource has become. The stakes are higher still because both nations have nuclear capabilities. A skirmish over a dam or water infrastructure in the Kashmir region, where many rivers originate, could spiral into broader conflict. Cyberattacks on water systems or dam sabotage could trigger humanitarian disasters and global alarm.

The threat is not just local. Any Indo-Pak water war would have far-reaching consequences disrupting trade, triggering refugee flows, and undermining global norms on transboundary water sharing. As the world watches other river basins like the Nile and Mekong grapple with similar tensions, the failure of South Asia to manage its waters peacefully would set a dangerous precedent.

The answer lies in renewed diplomacy and regional cooperation. India and Pakistan must strengthen the IWT, incorporate climate data, and jointly invest in modern irrigation and water-saving technologies. International mediation, though sensitive, may be necessary to break the deadlock.

Water must not become the spark that ignites the next war between India and Pakistan. It should be the resource that finally compels them to build trust, not walls.

Shahid A. Khan
 Executive Editor
editor@technobizmag.biz

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Azhar Rafique
Member, Advisory Board
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LPG AND THE RISE OF COMPOSITE CYLINDERS: SHAPING PAKISTAN'S ENERGY FUTURE



As Pakistan grapples with persistent energy shortages, rising fuel prices, and environmental concerns, Liquefied Petroleum Gas (LPG) is emerging as a practical and sustainable solution for a wide range of energy needs. Used extensively for cooking, heating, and increasingly in the transport sector, LPG is proving to be a cleaner-burning, versatile fuel that can help reduce the nation's dependence on traditional energy sources like petrol, diesel, and natural gas. Particularly in areas where piped natural gas is either unavailable or unreliable, LPG provides a crucial alternative that is both efficient and accessible.

However, the growth of LPG usage has also brought attention to the limitations of the traditional steel cylinders commonly used for its storage. These heavy, bulky containers are not only difficult to handle, especially for women, the elderly, and small-scale vendors, but also pose safety risks. Steel is prone to rust and corrosion over time, increasing the chance of leaks or even explosions if the cylinders are not properly maintained. Furthermore, steel cylinders are opaque, making it impossible for users to know how much gas remains inside, leading to inconvenience and unexpected disruptions during use.

In response to these challenges, a new



solution is gaining popularity: composite LPG cylinders. Made from advanced materials like fiberglass and polymers, these modern cylinders offer a number of advantages over traditional steel ones. For starters, they are significantly lighter, up to 50% less in weight, which makes them easier to lift, carry, and transport. This is a major benefit in domestic households and for mobile businesses that rely on portability. In addition, composite cylinders are non-corrosive and explosion-proof, dramatically improving safety standards. They are designed to safely vent gas in case of overpressure, minimizing the risk of dangerous accidents.

One of the most consumer-friendly features of composite cylinders is their transparency. Unlike steel, the translucent body of a composite cylinder allows users to see the gas level, eliminating guesswork and ensuring timely refills. Their sleek, modern design also appeals to today's consumers who value both function and aesthetics in their household items. From an environmental perspective, composite cylinders are a greener choice, as they are fully recyclable and have a longer life span, generating less waste over time.

Despite these benefits, the widespread adoption of composite LPG cylinders in Pakistan is still in its early stages. The

primary hurdle is cost, composite cylinders are more expensive than steel ones, which can discourage lower-income households from making the switch. However, as demand grows and local production increases, prices are expected to fall, making them more accessible to the average consumer. Government policies can also play a crucial role. By encouraging safety regulations, offering subsidies, or reducing taxes on composite cylinders, authorities can accelerate the transition toward safer and more efficient LPG storage.

The shift toward composite cylinders aligns well with Pakistan's broader energy and environmental goals. Promoting LPG as a cleaner alternative to fossil fuels is a step in the right direction, but it must go hand-in-hand with safer and more practical storage solutions. Composite cylinders represent innovation in both design and safety, offering consumers a vastly improved experience while enhancing the overall reliability of LPG as a fuel source.

In conclusion, as Pakistan moves toward a more sustainable and secure energy future, LPG is poised to play a vital role. To fully realize its potential, the country must also modernize the way LPG is stored and delivered. Composite LPG cylinders offer a smart, forward-thinking solution to the limitations of traditional steel cylinders. Their advantages in safety, convenience, and design make them not only a practical upgrade but a necessary one for the future. With the right support and increased awareness, composite cylinders are set to become the new standard in Pakistan's LPG landscape, reinforcing LPG's position as the fuel of the future.



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GADGETS WORLD



1

Lenovo Legion Go S

The Lenovo Legion Go S marks a bold step forward in handheld gaming, offering a refined experience for both casual and competitive players. It stands out as the first third-party handheld device to run on SteamOS, the same intuitive and gaming-focused operating system that has made the Steam Deck such a success. For those who prefer a more traditional PC experience, there is also a Windows 11 version available. Unlike its predecessor, the Legion Go S features a unibody design that eliminates detachable controllers, resulting in a more compact and durable build. This change makes the device easier to carry and use while traveling. The smaller form factor does not compromise on performance and instead adds to the overall convenience. The device introduces an improved D-Pad that delivers sharper precision, especially valuable for fans of fighting games. Additionally, the inclusion of trigger locks gives first-person shooter players more control and responsiveness. Whether you are loyal to Steam or more comfortable with Windows, the Lenovo Legion Go S brings flexibility, power, and portability together in one sleek package.



2

SwitchBot K20+ Pro

The SwitchBot K20+ Pro is a groundbreaking multitasking household robot designed to enhance smart home living. Its core feature is the FusionPlatform, a modular system that lets users attach accessories like air purifiers, fans, cameras, or tablet holders, transforming the device into a highly adaptable home assistant. With advanced D-ToF Lidar Navigation and dual laser sensors, the K20+ Pro maps your home accurately, ensuring smooth movement and obstacle avoidance. Its TwinFlow Suction Technology offers multiple cleaning modes, making it ideal for anything from light dusting to deep cleaning. Beyond vacuuming, the K20+ Pro also functions as a mobile air purifier or can transport household items weighing up to 8 kilograms. It integrates with the SwitchBot ecosystem and supports Alexa, Google Assistant, and Siri for easy voice control and automation. For those who enjoy customizing, the robot supports 3D-printed components and DIY attachments. The SwitchBot K20+ Pro is more than just a cleaning device. It is a smart, flexible companion that brings innovation and convenience to everyday life.



3

Lockly Styla

The Lockly Styla is a stylish and compact smart lock designed to combine advanced security with modern convenience. It features a fingerprint sensor for quick access, a digital keypad with Lockly's patented PIN Genie technology to prevent code guessing, and smartphone compatibility for remote locking and unlocking. Its slim, elegant design fits well on most doors, making it ideal for apartments or modern homes. Users can generate offline access codes for guests, monitor entry history in real time, and enjoy enhanced control through voice assistants like Alexa and Google Assistant. The Lockly Styla delivers smart, reliable security in a sleek, user-friendly package built for everyday use.



4

Roborock Saros Z70

The Roborock Saros Z70 is a groundbreaking robot vacuum that introduces a foldable five-axis robotic arm called OmniGrip, capable of picking up small items like socks and tissues weighing up to 300g. It features the StarSight Autonomous System 2.0, combining dual 3D ToF sensors and RGB cameras for precise navigation and obstacle avoidance. With 22,000Pa suction power, dual anti-tangle brushes, and VibraRise 4.0 mopping technology, it ensures thorough cleaning on various surfaces. The ultra-slim 7.98 cm design allows it to clean under low furniture, and the AdaptiLift chassis enables it to handle thresholds up to 4 cm. Multifunctional Dock 4.0, features auto mop removal, hot water mop washing, and fast 2.5-hour charging.



5

Xreal One Pro

AR glasses have often struggled with bulky prism lenses, but the Xreal One Pro, revealed at CES 2025, tackles this issue in two major ways. It features a flatter, smaller prism behind the lenses, making it the most inconspicuous AR glasses I've worn while still offering an impressively wide field of view. This makes them more practical and stylish for everyday use compared to previous models. Xreal One Pro includes a detachable 12MP camera module that attaches to the nose bridge, allowing for high-quality photos and videos. Additionally, gesture control functionality will be added later this year, enhancing its user experience. Xreal is positioning itself at the forefront of the AR revolution with these innovative advancements.



6

Xiaomi Smart Glasses

The Amazfit Active 2 is a feature-packed smartwatch that offers exceptional value, blending fitness tracking with smart features. It features a 1.32-inch AMOLED display with impressive brightness, ensuring excellent visibility even in direct sunlight. With over 160 sport modes and onboard GPS, it provides comprehensive tracking for various activities, including skiing with offline maps. The watch includes a barometric altimeter, NFC payments via Curve, and a microphone for voice commands. Health tracking is thorough, with continuous heart rate monitoring, SpO₂ measurement, and sleep tracking. The Amazfit Active 2 also offers impressive battery life, lasting up to 10 days on a single charge.

Rivers of Conflict:

How Water Shapes Indo-Pak Relations, Economy, and Security



The longstanding conflict between India and Pakistan over shared water resources remains one of the most pressing and complex challenges in South Asia. Since the partition of British India in 1947, water disputes have significantly influenced bilateral relations. The scarcity of water, intensified by climate change, population growth, and increasing agricultural demand, has turned rivers like the Indus, Jhelum, and Chenab into sources of contention. This conflict transcends mere resource allocation and carries deep political, economic, and security implications.

In 1960, the World Bank brokered the Indus Waters Treaty (IWT) to manage water sharing between the two nations. The treaty allocated the three eastern rivers (Ravi, Beas, and Sutlej) to India and the three western rivers (Indus, Jhelum, and Chenab) to Pakistan. India retained limited rights to use the western rivers for non-consumptive purposes, such as hydroelectric power generation, irrigation, and navigation.

Despite surviving three major wars and several military skirmishes between India and Pakistan, the IWT is increasingly being tested. Critics argue that the treaty, though resilient, has failed to evolve with the region's changing climatic and political realities. New dam projects and infrastructural developments have further strained relations, especially with Pakistan frequently accusing India of violating treaty provisions.

Pakistan's major grievances stem from India's construction of hydroelectric projects on the western rivers, particularly the Baglihar Dam, the Kishenganga Hydroelectric Plant, and the proposed Ratle Hydroelectric Project. Islamabad argues that these structures allow India to control or reduce water flows into Pakistan, affecting agricultural productivity and triggering fears of an existential water crisis. India, on the other hand, asserts that these projects are within the treaty's permissible guidelines, which allow for non-consumptive uses. India also accuses Pakistan of unnecessarily politicizing technical matters and resorting to international arbitration even when bilateral mechanisms are available. Disputes like the one over the Kishenganga project were taken to the Permanent Court of Arbitration (PCA) in The Hague, which ruled partially in Pakistan's favor by mandating a



minimum flow of water downstream. However, the slow pace of such resolutions has done little to ease mutual distrust.

Both India and Pakistan heavily rely on the Indus River system for agriculture, which forms the backbone of their economies. In Pakistan, agriculture contributes approximately 24% of the GDP and employs nearly 40% of the labor force. India, too, depends on agriculture, with over 50% of its population directly or indirectly relying on the sector. Water scarcity, whether caused by natural factors, mismanagement, or upstream diversions, poses a severe threat to food security, rural livelihoods, and national economies. Pakistan is particularly vulnerable, being one of the most water-stressed countries in the world. Poor water management, outdated irrigation techniques, and lack of proper infrastructure further exacerbate its crisis. Reduced river flows from India's hydroelectric projects could cripple Pakistan's agrarian economy, leading to mass unemployment, urban migration, and food shortages. In contrast, India, with its



relatively advanced water storage systems and irrigation infrastructure, is better equipped to handle short-term shortages. However, northern Indian states such as Punjab and Haryana also face internal water disputes, adding another layer of complexity.

The economic repercussions of the Indo-Pak water dispute extend far beyond agriculture. Reduced water availability impacts industrial production, urban water supply, and most notably, hydroelectric power generation. Pakistan, which relies heavily on hydropower, faces recurring energy shortages. These power deficits hinder industrial output, disrupt everyday life, and further strain the national economy. With a growing population and rapid urbanization, the inability to meet water and energy demands presents a dire challenge. India, too, faces significant stress on its water and energy resources. Yet, its diversified economy and greater foreign reserves allow more room to maneuver compared to Pakistan. That said, the ripple effect of any severe water crisis



would still disrupt regional trade, investment flows, and overall economic growth.

Water has increasingly been weaponized in the broader context of India-Pakistan hostilities. Following the Pulwama attack in 2019, which killed 40 Indian paramilitary personnel and was blamed on a Pakistan-based militant group, India announced its intention to restrict water flow from the eastern rivers to Pakistan. Although these rivers contribute minimally to Pakistan's overall water intake, the gesture was symbolic, highlighting India's willingness to leverage water as a strategic tool. Pakistan responded by accusing India of "water terrorism" and warned of retaliation. This rhetoric only fueled tensions, reflecting the psychological and political importance of water in the Indo-Pak conflict. By turning water into a diplomatic weapon, both nations risk transforming a technical issue into a potentially catastrophic geopolitical standoff.

The Kashmir region, through which many of these rivers flow, remains a volatile flashpoint. Militant activities, such as the Pehalgam episode, have the potential to derail fragile diplomatic engagements and further entrench the water dispute in broader security concerns. Non-state actors have also realized the strategic value of water, potentially targeting critical infrastructure to provoke conflict. Such attacks could sabotage peace efforts and push both nuclear-armed countries toward escalation.

The possibility of water-related warfare between India and Pakistan is no longer a distant hypothesis, it is a real and present



danger. A localized skirmish over control of water infrastructure, such as a dam or barrage, particularly in Kashmir, could quickly spiral into broader military engagement. Given the strategic importance of the Line of Control (LoC), any disruption of water flows could affect millions downstream. If either side perceives water scarcity as an existential threat, a full-fledged war could erupt. India's superior military might may provide it with an upper hand, but Pakistan's asymmetric warfare tactics and nuclear deterrence complicate any potential Indian



offensive. In an age of cyber warfare, attacks on water management systems are a growing concern. Disruption of dam operations or hydroelectric plants could lead to catastrophic flooding, blackouts, and loss of life. Moreover, Pakistan has hinted at the possibility of using tactical nuclear weapons in the event of a severe provocation, an action that would demand international intervention.

A water war between India and Pakistan would have dire global consequences. South Asia is already a hotspot of international tension, with China's expanding influence and U.S. strategic interests further complicating the picture. Any conflict could disrupt vital global trade routes, particularly through the Arabian Sea. It would likely cause a spike in global energy prices, trigger refugee crises, and destabilize nearby regions like Afghanistan, Central Asia, and the Middle East.



Furthermore, such a war would undermine international norms on transboundary water cooperation, potentially emboldening similar disputes in other contested river basins like the Nile or the Mekong.

Despite the challenges, hope lies in diplomacy and collaboration. For sustainable peace, both India and Pakistan must shift away from zero-sum thinking and adopt a cooperative framework for water management. Key recommendations include modernizing irrigation systems to improve water-use efficiency, investing in joint research and data-sharing to reduce mistrust, strengthening the Indus Waters Treaty to reflect modern realities, including climate change, utilizing third-party mediation, possibly through the World Bank or UN, to facilitate transparent dispute resolution, and developing shared hydropower projects, which can provide mutual economic benefits and reduce unilateral actions. Water, rather than being a cause of conflict, can become a platform for peace. Joint efforts can transform this essential resource into a bridge rather than a barrier.

The Indo-Pak water dispute is not just a technical or environmental issue, it is a geopolitical time bomb. While the Indus Waters Treaty has provided a framework for cooperation for over six decades, its limitations are increasingly exposed in today's context of climate change, population pressures, and growing hostility. The weaponization of water in political rhetoric and strategy has only served to widen the divide. If left unresolved, water scarcity could trigger the next war between India and Pakistan, a war neither side can afford. A future of cooperation, mutual trust, and shared prosperity is possible, but it requires vision, courage, and the willingness to act now. Water is life, and for South Asia's 1.7 billion people, the stakes could not be higher.

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EXPORT REVIVAL: PAKISTAN'S TRADE WITH EU SHOWS PROMISING GROWTH

The economic landscape of Pakistan has witnessed a notable shift in its trade dynamics with the European Union (EU) during the first eight months of the current fiscal year, FY25. Data released by the State Bank of Pakistan reveals a significant upswing in exports to the bloc, registering a growth of 9.41 per cent compared to the corresponding period in the previous fiscal year.

This resurgence translates to an absolute export value of \$5.921 billion between July and February FY25, a substantial increase from the \$5.412 billion recorded during the same timeframe in FY24. This positive trajectory stands in contrast to the overall performance in FY24, where Pakistan's exports to the EU experienced a 3.12 per cent decline, settling at \$8.240 billion for the entire fiscal year. The current growth is particularly noteworthy consider-

ing this prior contraction, suggesting a potential turnaround in the trade relationship between Pakistan and the EU.

The primary drivers behind this export growth appear to be concentrated in specific regions within the EU. The data indicates that higher shipment volumes to western and southern European states have played a crucial role in propelling this overall increase. This geographical specificity suggests that demand for Pakistani goods is not uniformly distributed across the EU but is rather concentrated in these particular markets. Further granular analysis of the export data, potentially at the product level, could shed more light on the specific goods that are experiencing increased demand in these regions. Understanding these product-market dynamics would be invaluable for Pakistani exporters and policymakers in formulating targeted trade strategies.

Beyond the regional focus, the State Bank of Pakistan's analysis points towards a broader, albeit slight, increase in demand for Pakistani goods across western, eastern, and northern Europe. This suggests a more widespread, though perhaps less pronounced than the growth in the south and west, positive sentiment towards Pakistani products within the EU market. The revival of export proceeds to these diverse



European regions is a significant indicator of a strengthening trade relationship and potentially reflects a growing competitiveness of Pakistani goods within the European market.

A key factor underpinning Pakistan's access to the EU market is its Generalised Scheme of Preferences Plus (GSP+) status. This preferential trade arrangement grants duty-free access to most European markets for eligible developing countries that implement international conventions on human rights, labour rights, environmental protection, and good governance. ¹ Despite holding this advantageous status throughout FY24, Pakistan's exports to the EU had surprisingly contracted. The current resurgence in exports during the first eight



months of FY25, therefore, highlights the potential benefits of the GSP+ scheme when coupled with favourable market conditions and competitive product offerings. The fact that the previous year saw a decline despite GSP+ underscores the complex interplay of factors that influence export performance, including global demand, domestic production capacity, and the specific nature of goods being traded.

The State Bank of Pakistan's observation that the revival of export proceeds to western, eastern, and northern European countries shows a rising trend for Pakistani textile and clothing products is particularly significant. The textile and clothing sector has historically been a cornerstone of Pakistan's export economy, and its performance heavily influences the overall trade balance. The indication of a strengthening demand for these products within the EU suggests that Pakistani manufacturers in this sector are potentially becoming more competitive, adapting to European market



preferences, or benefiting from shifts in global supply chains. This positive trend in a key export sector is likely a major contributor to the overall 9.41 per cent growth in exports to the EU.

To fully understand the implications of this export growth, it is crucial to consider the broader economic context both within Pakistan and the European Union. Factors such as macroeconomic stability in Pakistan, including inflation rates and exchange rate fluctuations, can significantly impact the competitiveness of its exports. Similarly, the economic health of the EU, including its growth rate and consumer demand, plays a vital role in determining the absorption capacity for goods from external partners like Pakistan. Any significant economic downturn in key EU markets could potentially dampen the current positive export trend.

Furthermore, non-economic factors such as geopolitical developments and

trade policies within the EU could also influence Pakistan's export performance. Changes in regulations, tariffs on competing nations, or evolving consumer preferences towards sustainability and ethical sourcing could create both opportunities and challenges for Pakistani exporters. Continuous monitoring of these external factors is essential for Pakistan to sustain and build upon the current export growth momentum.

The composition of Pakistan's exports to the EU also warrants closer examination. While the State Bank of Pakistan highlights the positive trend in textiles and clothing, a comprehensive analysis of other export categories would provide a more nuanced understanding of the overall trade relationship. Are other sectors also contributing to this growth, or is it predominantly driven by textiles? Identifying the specific products that are performing well can help Pakistan focus its export promotion efforts and identify

potential areas for diversification.

Moreover, the utilization of the GSP+ status by Pakistani exporters needs to be assessed. Are businesses fully leveraging the duty-free access available to them? Understanding the extent to which Pakistani exporters are capitalizing on this preferential treatment can help in identifying any bottlenecks or areas where awareness and capacity building might be needed. Ensuring compliance with the human rights, labour rights, environmental protection, and good governance conventions associated with GSP+ is also crucial for maintaining this valuable trade advantage.

The comparison between the first eight months of FY25 and the entirety of FY24 underscores the dynamic nature of international trade. The decline in exports in FY24, despite the GSP+ status, suggests that factors beyond preferential access were at play. These could include a slowdown in

demand within the EU, increased competition from other exporting nations, or domestic challenges within Pakistan that hampered export capacity. The current growth indicates a potential shift in these underlying factors, creating a more favourable environment for Pakistani exports.

Looking ahead, it is important for Pakistan to consolidate and build upon this positive export trend. This requires a multi-pronged approach involving both government policies and private sector initiatives. On the policy front, maintaining macroeconomic stability, streamlining export procedures, and investing in infrastructure that supports trade are crucial. Furthermore, actively engaging with the EU on trade-related matters and ensuring continued compliance with GSP+ requirements are essential for sustaining preferential access.

For the private sector, enhancing product quality, diversifying export offerings, and adapting to the evolving demands and preferences of the European market are key to long-term success. Investing in research and development, adopting sustainable production practices, and building strong relationships with European buyers can further strengthen Pakistan's position as a reliable trading partner.

The 9.41 per cent growth in Pakistan's exports to the EU during the first eight months of FY25 offers a glimmer of optimism for the country's trade prospects. While the recovery in demand within the EU, particularly for textile and clothing products, appears to be a significant driver, sustained growth will depend on a combination of favourable external conditions and proactive measures taken by Pakistan to enhance its export competitiveness. The contrast with the previous fiscal year's decline serves as a reminder of the volatility inherent in international trade and the need for continuous adaptation and strategic planning. Monitoring the performance in the remaining months of FY25 and conducting a detailed analysis of the product and market dynamics will be crucial for understanding the long-term sustainability of this positive trend and for formulating effective strategies to further strengthen Pakistan's trade relationship with the European Union. The focus on western and southern Europe as key growth drivers also suggests the need for targeted market research and engagement efforts in these specific regions to maximize export potential. Ultimately, leveraging the GSP+ status effectively, coupled with enhanced competitiveness and a responsive approach to the evolving European market, will be vital for Pakistan to fully capitalize on this positive momentum and achieve sustained export growth in the years to come.

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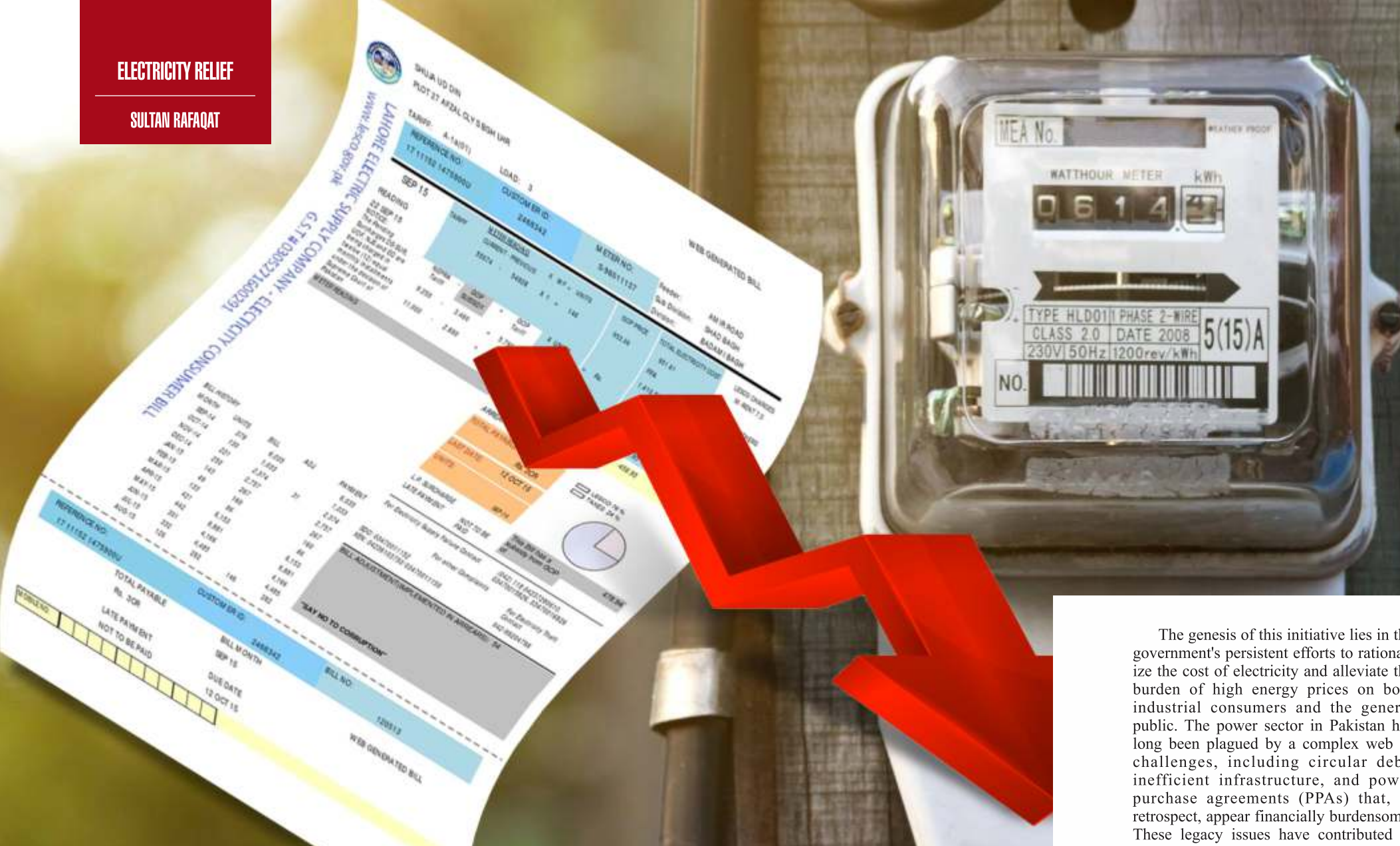
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POWER TARIFF RELIEF: GOVERNMENT SEEKS RS1.58 TRILLION SAVINGS

The intricate dance between a nation's energy needs and its economic realities often unfolds in the corridors of regulatory bodies and governmental offices. A recent development in Pakistan's power sector serves as a compelling case study in this dynamic interplay. The government has formally approached the National Electric Power Regulatory Authority (Nepra), seeking approval for a significant reduction in power purchase rates from four key public sector power plants. This move, underpinned by revised agreements, holds the promise of substantial financial relief, estimated at approximately Rs1.58 trillion over the remaining operational lifespans of these power generators. The implications of this request ripple across the energy landscape, touching upon economic stability, consumer affordability, and the future trajectory of Pakistan's power generation mix.

THE POTENTIAL SAVINGS OF RS1.58 TRILLION REPRESENT A SIGNIFICANT STEP TOWARDS ALLEVIATING THE FINANCIAL STRAIN ON THE POWER SECTOR AND THE ECONOMY. HOWEVER, IT IS IMPORTANT TO ACKNOWLEDGE THAT ACHIEVING THESE SAVINGS WILL DEPEND ON THE SUCCESSFUL IMPLEMENTATION OF THE REVISED AGREEMENTS AND THE CONTINUED EFFICIENT OPERATION OF THE POWER PLANTS.

The genesis of this initiative lies in the government's persistent efforts to rationalize the cost of electricity and alleviate the burden of high energy prices on both industrial consumers and the general public. The power sector in Pakistan has long been plagued by a complex web of challenges, including circular debt, inefficient infrastructure, and power purchase agreements (PPAs) that, in retrospect, appear financially burdensome. These legacy issues have contributed to elevated electricity tariffs, hindering economic competitiveness and placing a strain on household budgets. Recognizing the urgent need for reform, the government has embarked on a multi-pronged strategy to address these concerns, with the renegotiation of existing power purchase agreements emerging as a critical component.

The four public sector power plants in question represent a significant portion of the country's installed generation capacity. While specific details regarding the names and operational characteristics of these plants were not explicitly mentioned, it is reasonable to infer that they are likely to be large-scale facilities with substantial remaining operational lives. Public sector power plants often form the backbone of a nation's electricity supply, providing a stable and reliable source of power. However, the financial terms under which these plants operate can have a profound impact on the overall cost of electricity.

The request submitted to Nepra hinges

on revised agreements negotiated between the government and the entities operating these power plants. The process of renegotiating PPAs is often intricate and requires careful consideration of various factors, including the initial terms of the agreements, the operational performance of the plants, prevailing fuel prices, and the long-term energy outlook. The fact that the government has reached revised agree-



ments suggests a period of intensive negotiations aimed at finding mutually acceptable terms that would lead to lower power purchase rates.

The projected savings of Rs1.58 trillion over the remaining life spans of these plants underscore the magnitude of the potential financial benefits. This substantial reduction in power purchase costs could translate into lower electricity tariffs for consumers, providing much-needed relief and boosting economic activity. For industries, lower energy costs can enhance their competitiveness in both domestic and international markets, fostering growth and job creation. Moreover, reduced financial obligations related to power purchases can free up government resources that can be directed towards other critical areas of development, such as infrastructure, education, and healthcare.

Nepra's role in this process is crucial. As an independent regulatory body, Nepra is responsible for ensuring fair competition, protecting consumer interests, and maintaining the financial viability of the power sector. The authority will meticulously scrutinize the revised agreements submitted by the government, assessing their technical and financial implications. This evaluation will likely involve a detailed analysis of the proposed tariff reductions, their impact on the operational efficiency and profitability of the power plants, and the overall benefits for consumers and the power sector as a whole.

The regulatory review process typically

involves public hearings and consultations with stakeholders, including power producers, distribution companies, consumer groups, and industry experts. This transparent and inclusive approach ensures that all perspectives are considered before a final decision is made. Nepra's decision will be based on its mandate to balance the interests of all stakeholders and ensure a sustainable and affordable power supply for the country.

The government's initiative to seek lower power purchase rates from public sector plants aligns with broader efforts to reform Pakistan's energy sector. These reforms often include measures to improve efficiency in power generation and transmission, reduce reliance on expensive imported fuels, promote renewable energy sources, and address the issue of circular debt. By tackling the high cost of power generation, the government aims to create a more stable and sustainable energy system that can support long-term economic growth.

The potential savings of Rs1.58 trillion represent a significant step towards alleviating the financial strain on the power sector and the economy. However, it is important to acknowledge that achieving these savings will depend on the successful implementation of the revised agreements and the continued efficient operation of the power plants. Moreover, the overall impact on electricity tariffs will also be influenced by other factors, such as transmission and distribution losses, regulatory charges, and the pricing policies of distribution companies.

The government's proactive approach in renegotiating power purchase agreements with public sector plants demonstrates a commitment to addressing the long-standing challenges in the energy sector. If Nepra approves the proposed reductions, it could pave the way for a more affordable and sustainable power supply, fostering economic growth and improving the quality of life for citizens. This development underscores the critical role of effective governance and regulatory oversight in shaping a nation's energy future. The outcome of Nepra's deliberations will be closely watched by all stakeholders, as it holds the key to unlocking significant financial benefits and setting a precedent for future engagements in the power sector. The journey towards a more efficient and affordable energy landscape in Pakistan is ongoing, and this initiative represents a significant stride in that direction. The ability to secure such substantial savings through negotiation highlights the potential for strategic interventions to reshape the financial dynamics of the power sector and ultimately benefit the nation as a whole.



We hit the energy jackpot—fossil fuels lit up the world, launched planes, powered cities, and transformed life. But this carbon-fueled high won't last. We're burning through ancient energy faster than nature can keep up. As the pulse fades, a smarter, cleaner future is our only way forward.

Humanity's Energy Jackpot and Its Looming Limits

For millennia, humans lived by nature's rhythm—sunlight set the day, rivers moved goods, and wood warmed homes. Then, in just two centuries, we built skyscrapers, flew jets, and connected globally in seconds. This leap was powered by the carbon pulse—a fleeting surge of energy from fossil fuels, formed over millions of years from ancient organic matter. Coal, oil, and gas unleashed unprecedented progress, but we've misused this one-time gift, and it's running out.

The Carbon Pulse Explained

The carbon pulse is humanity's brief era of tapping vast stores of fossil energy—coal, oil, and natural gas—compressed over eons. Since the 1800s, we've burned these fuels at a staggering rate. In 2023, global energy consumption reached ~600 exajoules, with fossil fuels supplying ~80% (IEA, 2024). This energy drove the Industrial Revolution, powering steam engines,

factories, and later, electricity grids. Today, ~10,000 planes are airborne at any moment (Flightradar24, 2025), and ~50,000 ships traverse oceans yearly (UNCTAD, 2024)—all fueled by this pulse. But this bonanza is finite; we're depleting high-quality reserves millions of times faster than nature can replenish them.

Misusing the Carbon Pulse

Our misuse of this energy windfall is twofold: reckless consumption and environmental neglect. We've built systems assuming endless cheap fuel. Agriculture relies on oil for tractors and fertilizers; transport guzzles jet fuel and diesel; even data centers powering the internet demand constant electricity. In 2022, global oil consumption hit ~4.3 billion metric tons (BP, 2023), yet we treat this as sustainable. Worse, burning fossil fuels releases ~36 billion tons of CO₂ annually (Global Carbon Project, 2024), driving climate chaos—rising temperatures (~1.2°C above pre-industrial levels), melting Arctic ice (30% loss since 1980, NSIDC), warming oceans, and extreme weather like hurricanes and droughts. Our addiction ignores the pulse's limits, squandering energy on inefficient systems while destabilizing Earth's balance.

The Energy Cliff

As easy-to-extract fuels dwindle, we're

left with lower-grade sources requiring more energy to access. Energy Return on Investment (EROI) measures this efficiency. In the 1930s, oil's EROI was ~100:1; today, it's ~15:1 for conventional oil and as low as ~1.5:1 for shale (Nature Energy, 2024). When EROI nears 1:1, extraction becomes futile.

A Smarter Future

The carbon pulse's end isn't humanity's end—it's a call for ingenuity. We must pivot to renewables (solar, wind, hydro), which supplied ~30% of global electricity in 2024 (IEA). Local production, energy efficiency, and education can build resilience. Success means living better with less, ensuring a planet our children can thrive on.

THE END OF THE CARBON PULSE

The Rise of Agricultural Robotics:

A New Dawn for Pakistani Farmers

Agricultural robots can transform Pakistan's farming by boosting yields, saving resources, and tackling labor shortages. From seeding to harvesting, these smart machines offer precision and efficiency.



Agriculture forms the backbone of Pakistan's economy, contributing significantly to its GDP and employing a large portion of the population. However, the sector faces numerous challenges, including water scarcity, climate change, a growing population demanding increased food production, and reliance on traditional farming practices that often result in lower yields and inefficient resource utilization. To address these challenges and enhance agricultural productivity and sustainability, the adoption of modern agricultural technologies, particularly agricultural robots, holds immense potential for Pakistan.

Agricultural robots, also known as agbots, are autonomous machines designed to automate various tasks in farming. These robots utilize advanced technologies such as artificial intelligence (AI), machine learning, computer vision, GPS, and sensors to perform tasks with precision and efficiency, reducing the need for manual labor and optimizing resource utilization. The integration of robotics into agriculture is part of a broader movement towards smart or precision agriculture, which aims to use data-driven insights to improve farming practices.

Types of Agricultural Robots and Their Applications

A diverse range of agricultural robots is being developed and deployed globally, each designed for specific tasks across the crop production cycle and livestock management. While the adoption of these technologies is still in its nascent stages in Pakistan, understanding the different types of robots and their potential applications is crucial for future integration. Some key types of agricultural robots include:

1. Autonomous Tractors and Vehicles: These robots can perform tasks such as plowing, seeding, fertilizing, and spraying without human intervention. Equipped with GPS and advanced navigation systems, they can operate with high precision, ensuring uniform coverage and reducing overlaps, thus optimizing input use and minimizing waste.

2. Planting and Seeding Robots: These robots can precisely sow seeds at optimal depths and spacing, ensuring uniform emergence and maximizing yields. Some advanced seeding robots can also dig the soil, add fertilizer, and water the seeds in a single pass, further enhancing efficiency.

3. Harvesting and Picking Robots: Harvesting robots are designed to automate the labor-intensive and time-sensitive task of harvesting crops. Equipped with sensors and computer vision, they can identify ripe produce, gently pick it without causing damage, and sort it based on quality and size. These robots are particularly valuable for high-value crops like fruits and vegetables.



4. Weeding Robots: Weeds compete with crops for essential resources like water, nutrients, and sunlight, significantly impacting yields. Weeding robots use image recognition technology to identify and remove weeds, either mechanically by agitating the soil and pulling them up or through precise application of herbicides, minimizing the use of harmful chemicals.

5. Spraying and Fertilizing Robots: These robots can autonomously navigate fields and apply pesticides, herbicides, and fertilizers with precision, targeting only the areas that need treatment. This targeted approach reduces the amount of chemicals used, lowering costs, minimizing environmental impact, and improving worker safety.

6. Crop Monitoring Robots (Drones and Ground Rovers): Drones equipped with various sensors (e.g., multispectral, thermal, LiDAR) can capture aerial imagery of fields, providing valuable data on crop health, growth stages, soil conditions, and pest infestations. Ground-based mobile robots can also traverse fields,

collecting data through sensors and cameras, offering a more detailed view of plant health and environmental parameters.

7. Sorting and Grading Robots: After harvesting, robots equipped with computer vision and AI can efficiently sort and grade produce based on size, shape, color, and quality, removing damaged or defective items and ensuring consistent product standards.

8. Livestock Monitoring Robots: Robots and sensor systems are also being used for livestock management. These technologies can monitor animal health, behavior, and location, providing insights into their well-being and optimizing feeding and breeding practices. Examples include robotic milking systems and drones for tracking grazing animals.

9. Pollination Robots: While bees are the primary pollinators, some robots are being developed to assist in pollinating crops, particularly in controlled environments like greenhouses. These robots use AI to recognize flowers ready for pollination and deliver pollen using puffs of air.

Potential Usage of Agricultural Robots in Pakistan

Given the challenges and opportunities in Pakistan's agricultural sector, the adoption of agricultural robots could bring significant benefits:

1. Addressing Labor Shortages: Pakistan's agricultural sector often faces labor shortages, especially during peak seasons like harvesting. Robots can automate labor-intensive tasks, ensuring timely operations and reducing reliance on manual labor.

2. Enhancing Efficiency and Productivity: Robots can work continuously and with high precision, performing tasks faster and more accurately than humans. This can lead to increased efficiency, higher yields, and reduced waste.

3. Optimizing Resource Utilization: Precision agriculture techniques enabled by robots allow for the precise application of water, fertilizers, and pesticides, reducing overuse and minimizing environmental impact while lowering input costs. This is particularly crucial in water-scarce regions like parts of Pakistan.

4. Improving Crop and Livestock Health Monitoring: Robots equipped with sensors and AI can continuously monitor crop and livestock health, enabling early detection of diseases, pests, and nutrient deficiencies, allowing for timely interventions and preventing significant losses.

5. Data-Driven Decision Making: The data collected by agricultural robots provides valuable insights into various aspects of farming, enabling farmers to make informed decisions regarding irrigation, fertilization, pest control, and harvesting, leading to optimized management practices.



6. Promoting Sustainable Farming Practices: By reducing the use of chemicals, minimizing waste, and optimizing resource utilization, agricultural robots can contribute to more sustainable and environmentally friendly farming practices.

Challenges to Adoption in Pakistan

Despite the immense potential, the widespread adoption of agricultural robots in Pakistan faces several challenges:

1. High Initial Costs: The initial investment in agricultural robots and related technologies can be substantial, which may be a significant barrier for smallholder farmers who constitute a large proportion of the agricultural sector in Pakistan.

2. Lack of Awareness and Technical Expertise: Many farmers in Pakistan may lack awareness about the benefits and operation of agricultural robots. There is also a need for skilled personnel to operate, maintain, and repair these advanced

machines.

3. Infrastructure Limitations: The adoption of some agricultural robots may require adequate infrastructure, such as reliable electricity supply, internet connectivity for data transmission and analysis, and well-maintained farm roads for robot navigation. These may be lacking in many rural areas of Pakistan.

4. Land Tenure Issues: Uncertain land ownership and fragmented landholdings can also hinder the adoption of large-scale robotic solutions. Farmers may be hesitant to invest in technologies for land they do not have secure long-term rights to.

5. Skepticism and Resistance to Change: Some farmers may be skeptical about the effectiveness and reliability of new technologies or resistant to changing their traditional farming practices.

6. Regulatory and Policy Framework: A clear regulatory and policy framework that supports the adoption of agricultural technology, including robots, is needed. This could include subsidies, training



programs, and guidelines for the safe and effective use of these technologies.

The Future of Agricultural Robotics in Pakistan

Despite the challenges, the future of agricultural robotics in Pakistan holds significant promise. As technology costs decrease and awareness increases, more farmers may find these solutions accessible and beneficial. Government initiatives, research institutions, and private sector involvement can play a crucial role in promoting the adoption of agricultural robots through:

- **Financial Support and Subsidies:** Providing financial assistance or subsidies to farmers to invest in agricultural robots can help overcome the initial cost barrier.

- **Awareness Campaigns and Training Programs:** Conducting awareness campaigns and providing training programs can educate farmers about the benefits and operation of agricultural robots, building trust and technical expertise.

- **Infrastructure Development:** Investing in rural infrastructure, such as electricity and internet connectivity, will create an enabling environment for the adoption of advanced agricultural technologies.

- **Research and Development:** Supporting local research and development efforts in agricultural robotics can lead to the development of solutions tailored to the specific needs and conditions of Pakistani agriculture.

- **Public-Private Partnerships:** Collaboration between the government, private sector companies, and research institutions can facilitate the development, testing, and dissemination of agricultural robotic technologies.

- **Promoting Precision Agriculture:** Encouraging the broader adoption of precision agriculture practices will create a greater demand for and facilitate the integration of agricultural robots.

In conclusion, agricultural robots have the potential to revolutionize farming practices in Pakistan, addressing critical challenges and enhancing productivity, efficiency, and sustainability. While there are hurdles to overcome, a concerted effort involving government support, private sector innovation, and farmer engagement can pave the way for the successful integration of these advanced technologies into Pakistan's agricultural sector, contributing to food security, economic growth, and environmental sustainability.

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HOW

SPEECH PATHOLOGY

IMPROVES QUALITY OF LIFE



others who require assistance for a lifetime—it's all dependent upon the expert trained professional known as the speech-language pathologist (SLP) in the field. Their expertise not only helps improve communication but also boosts confidence, independence, and overall well-being.

1. Enhancing Communication Skills

The greatest improvement in quality of life stemming from speech pathology occurs from giving individuals the chance to learn how to talk and understand others better. For children who develop speech and language at atypical rates, clinicians are able to engage them earlier—whether with speech pathology or not—for greater success in educational and social arenas. For adults, speech pathology can restore one's ability to communicate when taken away by a stroke, a Traumatic brain injury, or the onset of stressors and symptoms of neurodegenerative diseases like Parkinson's.



2. Boosting Confidence and Social Participation

As a result, socialization is less common in people with communication disorders, who may be trying to avoid being understood and avoid overstimulation or guilt. A person's likelihood of having a discussion and feeling good about forming friendships and assimilating into the community increases with their verbal expressiveness and linguistic comprehensiveness, which promotes improved psychological and emotional well-being.

3. Improving Swallowing and Feeding

Millions of people live with dysphagia, susceptible to malnutrition, dehydration, and aspiration pneumonia—conditions faced by at-risk populations that can have life-threatening consequences. Yet through assessment and treatment, SLPs provide

safe eating and drinking options; the physical health gains and ensuing improvements in quality of life are evident.

4. Supporting Individuals with Developmental and Learning Disabilities

Students with autism, Down syndrome, specific learning disabilities, and others, benefit from speech therapy. SLPs create individualized strategies that address communication, social skills, and academic performance making it easier for individuals to reach their full potential.

5. Aiding Voice and Fluency Disorders

Individuals affected by a voice disorder or stuttering can experience difficulty with everyday conversation. Speech-language pathologists offer strategies for improving vocal quality and fluency so that clients can speak in a more comfortable way and with better control.

6. Empowering Caregivers and Families

In addition, while an SLP works with the patient, they also engage with families and caregivers needing educational resources, techniques, and devices to support intervention and treatment. The synergy between SLP and patient/caregiver/family minimizes caregiver burden and maximizes the effectiveness of treatment.

Conclusion

Speech pathology does not just fix speech—it changes lives. When someone can communicate again or can eat and swallow without choking because a speech-language pathologist intervened, they are on a path to a better quality of life, seamlessly independent and functioning in the social world. The SLP works in every arena—from the hospital to the school, from long-term care facilities to private practice; without the SLP, society is not as certain, unified.



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Balochistan's Senior Minister for Planning and Development, Zahoor Buledi, has recently articulated a vision for the Gadani ship-breaking yard, a vision centered on formalization and legal regulation. The cornerstone of this initiative is the provincial government's commitment to introducing a comprehensive ship-breaking law, a move aimed at transforming a sector often associated with informality and environmental concerns into a structured, regulated industry. Buledi's pronouncements signal a significant shift in the provincial government's approach to this crucial economic activity, one that holds immense potential for job creation and regional development.

A new ship-breaking law aims to formalize the Gadani yard, bringing legal structure, safer work conditions, and environmental oversight to unlock its full economic and developmental potential.

LEGAL FRAMEWORK ON THE HORIZON FOR GADANI SHIP-BREAKING INDUSTRY



The Gadani ship-breaking yard, located along the coast of Balochistan, has long been a significant, albeit often overlooked, contributor to Pakistan's economy. It provides raw materials for various industries, particularly steel, and employs thousands of workers. However, the industry has also been plagued by concerns regarding worker safety, environmental degradation, and a general lack of regulatory oversight. The absence of a dedicated legal framework has left the sector vulnerable to exploitation, hindering its potential for sustainable growth.

Buledi's announcement of a ship-breaking law represents a crucial step towards addressing these challenges. The proposed legislation is expected to encompass a wide range of provisions, including regulations for safe working conditions, environmental protection,

and waste management. By establishing clear guidelines and standards, the provincial government aims to create a more responsible and sustainable ship-breaking industry. This move is not merely about imposing restrictions; it's about fostering an environment where the industry can thrive while adhering to ethical and environmental principles.

The minister's call for the federal government to declare the Gadani ship-breaking business a formal industry further underscores the provincial government's commitment to this sector. Formal recognition would pave the way for increased investment, access to financing, and integration into the national economic framework. It would also enable the industry to benefit from government support and incentives, fostering innovation and modernization. Formalization would also open the gates to international standards, improving the quality of the industry and allowing for export of the steel products to international markets.

The implications of these initiatives extend beyond the immediate economic benefits. A formalized and regulated ship-breaking industry can contribute to the overall development of Balochistan, a province that has long grappled with socio-economic challenges. By creating employment opportunities and generating revenue, the sector can play a vital role in poverty reduction and regional stability. Moreover, the emphasis on environmental protection and worker safety can help mitigate the negative impacts associated with ship-breaking activities, promoting a more sustain-



able and equitable development model.

However, the successful implementation of these initiatives will require a concerted effort from all stakeholders. The provincial government will need to engage with industry representatives, labor unions, and environmental organizations to ensure that the proposed legislation is practical and effective. Collaboration with the federal government will also be crucial in securing the necessary support and resources for the formalization process.

One of the significant challenges that must be addressed is the existing infrastructure at the Gadani ship-breaking yard. Decades of informal operation have resulted in a lack of modern facilities and equipment, hindering efficiency and safety. Investing in infrastructure development, including improved docking facilities, waste management systems, and worker accommodations, will be essential for transforming the yard into a world-class ship-breaking facility.

Furthermore, the provincial government will need to prioritize capacity building and training programs for workers. Enhancing their skills and knowledge will not only improve safety standards but also increase productivity and competitiveness. This can be achieved through partnerships with technical and vocational training institutes, as well as collaboration with international organizations specializing in ship-breaking best practices.

The environmental aspects of the proposed legislation are also critical. Ship-breaking activities can generate significant amounts of hazardous waste, including asbestos, heavy metals, and oil residues. Implementing robust waste management systems and promoting environmentally friendly practices will be essential for minimizing the industry's environmental footprint. This will require investment in specialized equipment and facilities, as well as the adoption of international environmental standards.



The formalization of the Gadani ship-breaking industry also presents an opportunity to promote transparency and accountability. Establishing clear regulatory frameworks and monitoring mechanisms will help prevent corruption and ensure that the industry operates in a fair and ethical manner. This can be achieved through the establishment of an independent regulatory body and the implementation of robust auditing and reporting procedures.

The process of transforming the Gadani ship-breaking yard into a formal industry will undoubtedly be complex and challenging. However, the potential benefits are immense. By embracing a sustainable and responsible approach, Balochistan can unlock the full potential of this sector, creating jobs, generating revenue, and fostering regional development. Buledi's vision represents a bold step towards this goal, signaling a commitment to a brighter future for the Gadani ship-breaking industry and the people of Balochistan.

In conclusion, the Balochistan government's initiative to introduce a ship-breaking law and formalize the Gadani ship-breaking business is a pivotal move. It promises to transform a historically informal sector into a regulated, sustainable, and economically viable industry. The journey ahead will require diligence, collaboration, and a steadfast commitment to the principles of safety, environmental protection, and equitable development. However, the potential rewards for Balochistan and Pakistan as a whole make this endeavor a worthwhile pursuit. The successful formalization of the Gadani ship-breaking yard could serve as a model for other industries in the region, demonstrating the power of responsible governance and sustainable development.

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INTERNATIONAL LENDERS EYE REKO DIQ: IFC LEADS WITH \$300 MILLION

Backed by IFC's \$300M investment, the Reko Diq mining project promises economic uplift for Balochistan and Pakistan through job creation, infrastructure development, and increased foreign investment, despite complex challenges.

The rugged, mineral-rich terrain of Balochistan, Pakistan, long whispered to hold vast treasures beneath its arid surface, is on the cusp of a transformative chapter. The Reko Diq project, a sprawling copper-gold mining venture, is poised to move from a protracted period of exploration and negotiation into active development, fueled by significant financial commitments from international institutions. A recent disclosure from the International Finance Corporation (IFC), the private investment arm of the World Bank Group, has confirmed its intention to provide \$300 million in debt financing for this ambitious undertaking. This commitment signals a crucial step forward for the project, unlocking further investment and potentially reshaping the economic landscape of the region and the nation.

The Reko Diq mine, majority-owned and operated by Barrick Gold Corporation, a global leader in the mining industry,

represents one of the world's largest undeveloped copper-gold deposits. The sheer scale of the resource has long attracted attention, but its journey towards realization has been marked by legal challenges and protracted negotiations. The recent resolution of these hurdles paved the way for Barrick Gold to actively pursue the financing necessary to bring this massive project to fruition. The company's project director for the mine has indicated an ambitious timeline, aiming to secure upwards of \$2 billion in financing from international lenders, with term sheets anticipated to be signed by early in the third quarter of the current year. The IFC's \$300 million commitment is a significant anchor in this broader financing strategy, lending credibility and potentially attracting other lenders to participate in the syndicate.

The significance of the Reko Diq project extends far beyond the immediate financial investment. For Balochistan, one of Pakistan's least developed provinces, the mine holds the promise of substantial economic upliftment. The project is expected to generate thousands of direct and indirect jobs during its construction and operational phases, providing much-needed employment opportunities for the local population. Beyond employment, the project anticipates significant contributions to the provincial and federal exchequers through royalties, taxes, and other



payments. These revenues could be instrumental in funding crucial infrastructure development, social programs, and other initiatives aimed at improving the quality of life for the people of Balochistan.

Furthermore, the development of the Reko Diq mine has the potential to stimulate the growth of ancillary industries and services in the region. This includes businesses related to transportation, logistics, construction, maintenance, and catering, creating a multiplier effect that can further boost the local economy. The influx of investment and economic activity could also lead to improvements in infrastructure, such as roads, power supply, and water resources, benefiting not only the mine but also the surrounding communities.

From a national perspective, the Reko Diq project holds the promise of significantly bolstering Pakistan's economy. The export of copper and gold will contribute to increased foreign exchange earnings, helping to alleviate pressure on the country's balance of payments. Moreover, the project could attract further foreign direct investment in the mining sector and other related industries, signaling confidence in Pakistan's resource potential and investment climate. The development of a large-scale mining operation like Reko Diq can also lead to the transfer of technological expertise and the development of local skills in mining and related fields, contributing to the long-term growth and diversification of the Pakistani economy.

The IFC's involvement in the Reko Diq project is particularly noteworthy. As a leading development finance institution focused on the private sector in developing countries, the IFC's participation brings not only financial resources but also its expertise in environmental and social sustainability, corporate governance, and risk management. The IFC typically adheres to stringent environmental and social performance standards in its investments, ensuring that projects are developed in a responsible and sustainable manner. This involvement can provide assurances to other stakeholders, including local communities and international investors, that the Reko Diq project will be developed with due consideration for environmental protection and social well-being.

The due diligence process undertaken by the IFC before committing to such a significant investment is rigorous, encompassing a thorough assessment of the project's technical feasibility, economic viability, environmental and social impact, and governance framework. The fact that the IFC has decided to provide debt financing suggests that it has assessed the Reko Diq project favorably across these critical dimensions. This endorsement can



further enhance the project's credibility and attract other reputable lenders and investors.

The anticipated \$2 billion financing package from international lenders underscores the significant capital investment required for a project of this scale and complexity. Modern mining operations, particularly those involving large-scale extraction and processing of minerals, necessitate substantial upfront investment in infrastructure, equipment, and technology. The involvement of multiple international lenders in the financing syndicate will help to diversify the risk and ensure the availability of the necessary capital to support the project's development over its multi-year construction phase.

The timeline indicated by Barrick Gold's project director, with term sheets expected by early Q3, suggests a concerted effort to finalize the financing arrangements and move towards the active construction phase. The signing of term sheets typically outlines the key terms and conditions of the loan agreements, paving the way for the finalization of legal documentation and the disbursement of funds. This timeline indicates a strong commitment from

Barrick Gold to expedite the development of the Reko Diq project and capitalize on the favorable market conditions for copper and gold.

However, despite the significant progress and positive momentum, the development of a large-scale mining project like Reko Diq is not without its challenges. These can include logistical hurdles related to infrastructure development in a remote region, potential social and environmental impacts that need to be carefully managed, and the need to build and maintain strong relationships with local communities and other stakeholders. Effective stakeholder engagement, transparent communication, and adherence to international best practices in environmental and social management will be crucial for the long-term success and sustainability of the project.

The government of Pakistan, both at the federal and provincial levels, will also play a critical role in facilitating the smooth development and operation of the Reko Diq mine. This includes ensuring a stable and predictable regulatory environment, providing necessary infrastructure support, and working collaboratively with Barrick Gold and local communities to address any concerns or challenges that may arise. A strong and collaborative partnership between the government, the project developer, and local stakeholders will be essential for maximizing the economic and social benefits of the project while mitigating potential risks.

In conclusion, the International Finance Corporation's commitment of \$300 million in debt financing for the Reko Diq copper-gold mining project marks a significant milestone in its journey towards realization. This investment, coupled with Barrick Gold's efforts to secure further financing from international lenders, signals a strong vote of confidence in the project's potential and Pakistan's resource sector. The Reko Diq mine holds immense promise for the economic development of Balochistan and Pakistan as a whole, offering the potential for job creation, revenue generation, infrastructure development, and the attraction of further investment. While challenges remain in navigating the complexities of a large-scale mining operation in a remote region, the commitment of international financial institutions like the IFC and the experience of a global mining leader like Barrick Gold provide a strong foundation for the successful development and operation of this transformative project. The world will be watching as the rich mineral potential of Balochistan begins to be unlocked, potentially ushering in a new era of economic growth and opportunity for the region and the nation.

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FUNDING NATURE TO FIGHT CLIMATE CHANGE



To fund nature-based climate adaptation, build strong partnerships, demonstrate clear community and environmental benefits, develop local green skills, and present a well-researched, data-backed, and achievable project plan.



As climate change brings more frequent floods, heatwaves and other extreme weather, communities across the UK are turning to nature to protect themselves. By restoring green spaces like rivers, parks and woodlands, we can create natural defences that not only absorb excess rainwater or cool urban areas but also offer wider benefits such as improved wellbeing, stronger biodiversity and social connection.

However, securing funding for nature-based climate adaptation remains a challenge. Councils, charities, landowners and community groups must be strategic and clear when presenting their projects to potential funders. Lessons from Ashden's Resilient Roots programme in North West England offer practical advice for those seeking to deliver effective and inclusive adaptation projects.

Collaboration is one of the most powerful tools available. Building strong partnerships with local councils, universities, schools, businesses and voluntary groups can significantly boost a project's credibility and impact. It shows funders that the initiative has broad support and a network of expertise behind it. For example, the Leeds-based charity Friends of Gledhow Valley Woods works with engineering consultancy SWECO, the University of Leeds, Leeds City Council

and Groundwork Yorkshire. These relationships have helped them fund and deliver meaningful change. Strong partnerships also open doors to additional funding sources, technical knowledge and long-term project support, reducing the risk of failure or underperformance.

Another essential step is to clearly show the outcomes your project will achieve. Funders need to understand the specific environmental and social benefits. Will your project reduce emissions or help biodiversity thrive? Will it create access to green space in underserved areas or involve marginalised groups? Use available tools to back your claims with data. Free resources like the Manchester IGNITION Green Roofs Benefits Calculator and the Mersey Forest's Green Infrastructure Valuation Toolkit help measure and explain project value. For deeper analysis, the Social Value Engine can assess the broader social and economic impact of your work. Including monitoring and evaluation mechanisms in your proposal also shows a commitment to accountability and improvement, which many funders highly appreciate.

Building green skills within the community is another major advantage. Training local people in environmental management, such as tree care and habitat

restoration, not only strengthens your project but also supports long-term employment and learning. This appeals to funders who value sustainability and community benefit. The community interest company Riverlution provides a strong example. Through its Stewardship Partnerships, it offers Lantra-accredited training in skills like first aid and tree brushing. Many participants move on to further work, showing how environmental action can build stronger futures. Projects that embed education and upskilling also help foster local pride and a sense of ownership, ensuring the space is valued and maintained for years to come.

Finally, no funding application is complete without a strong, well-researched plan. Funders want to be sure your project is not only visionary but also achievable. A good proposal should include clear goals, timelines, budgets and evidence of local need and support. It should show a clear understanding of the area's environmental context and demonstrate how the project will be maintained over time. Including case studies, community testimonials or letters of support can further strengthen your application and provide tangible proof of your project's relevance and potential.

Nature-based adaptation is one of the most effective ways to respond to climate change while creating better places to live. By focusing on collaboration, clear impact, community skills and strong planning, organisations can build a strong case to secure the funding they need and bring lasting change to their local environments.



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One of the most haunting moments in the film involves Joe's fellow looper Seth, played by Paul Dano. When Seth fails to kill his future self, the mob captures the younger version and begins removing his body parts one by one.

Rleased in 2012, *Looper* is a gripping American science fiction thriller that showcases the storytelling brilliance of writer and director Rian Johnson. Produced by Ram Bergman and James D. Stern, the film presents a compelling vision of a dystopian future where time travel is exploited by criminal organizations. In this bleak world, assassins known as "loopers" are

hired to eliminate targets sent back in time. The film is not only built on a fascinating premise but also delivers emotional depth, moral conflict, and intellectual intrigue that elevate it far beyond standard sci-fi fare.C

Looper made its world premiere as the opening film of the 2012 Toronto International Film Festival on September 6 and was released in theaters across the United States on September 28. Distributed by FilmDistrict, which acquired the domestic rights at the 2011 Cannes Film Festival, the film opened in 2,992 North

American theaters and earned 20.8 million dollars during its opening weekend. With a production budget of 30 million dollars, it ultimately grossed 66.5 million dollars domestically and 110 million dollars internationally, bringing its worldwide total to 176 million dollars. Part of its international success stemmed from a version tailored for the Chinese market, with extended scenes set in Shanghai, developed through a co-production deal with DMG Entertainment. These scenes were later shortened for the U.S. release.

The production of *Looper* followed Johnson's previous film *The Brothers*

A TIME-TWISTING SCI-FI TRIUMPH
THAT REDEFINED THE GENRE

LOOPER



Bloom in 2008. Reuniting with producer Ram Bergman, Johnson initially aimed to begin production in 2009. Casting was finalized by 2010 and 2011, with Joseph Gordon-Levitt taking the lead as Joe Simmons, joined by Bruce Willis and Emily Blunt. To enhance the visual continuity between the younger and older versions of Joe, legendary prosthetics artist Kazuhiro Tsuji created subtle makeup alterations to make Gordon-Levitt resemble Willis. The film's aesthetic, influenced by neo-noir visuals and classic science fiction, was further enriched by Nathan Johnson's evocative musical score.

Set in the year 2044, the film portrays a society in decline, with rising crime, economic collapse, and a growing segment of the population developing mild telekinetic powers. By 2074, time travel has been invented but is strictly illegal. Criminal syndicates, however, use it to secretly dispose of their enemies by sending them back in time to be killed by loopers. These loopers are well-compensated, but each one eventually faces the task of "closing the loop" by executing their future self. When Joe, a seasoned looper, is



confronted with his older self who escapes instead of being killed, a dangerous series of events unfolds.

The older Joe, played by Bruce Willis, is determined to alter the future by eliminating a mysterious and powerful figure known as the Rainmaker. His mission leads both versions of Joe into conflict, as well as to a remote farmhouse



where young Joe encounters Sara, played by Emily Blunt. She is the mother of a telekinetic boy named Cid, who may grow up to become the Rainmaker. The story becomes a tense battle of choices, legacy, and the chance to break a violent cycle.

One of the most haunting moments in the film involves Joe's fellow looper Seth, played by Paul Dano. When Seth fails to kill his future self, the mob captures the younger version and begins removing his body parts one by one. As a result, the older Seth's body disintegrates in real time, a chilling display of time-travel consequences that underscores the film's narrative complexity.

Beyond its engaging plot and polished visuals, Looper is a rare example of a science fiction film that uses action as a vessel for deeper ideas. The characters are not merely pawns of spectacle but are deeply human, wrestling with trauma, regret, love, and the question of whether their destiny is fixed or flexible. Johnson's direction ensures that even amidst shootouts and suspense, emotional resonance is never lost. The film also questions the morality of killing for the greater good and explores how violence in the present can echo far into the future.

Looper was met with widespread acclaim. Rotten Tomatoes reported a 93 percent approval rating, while Metacritic gave it a score of 84 out of 100, indicating universal praise. Audiences also responded well, giving the film a B-plus CinemaScore. Critics highlighted its originality, thematic ambition, and strong performances. James Mottram of Total Film called it the best sci-fi movie since Moon, a statement echoed by many who found Looper to be a refreshing and thought-provoking contribution to the genre.

Blending high-stakes action with meditations on fate, identity, and redemption, Looper offers more than just a thrilling ride. It presents a fully realized world where characters must confront the consequences of their actions across time. Its layered storytelling, artistic vision, and philosophical depth have cemented its status as a modern science fiction classic that continues to resonate with audiences and inspire filmmakers.



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TECH NEWS



Pakistan Aims to Become Global Tech Hub with \$700M Investment Pledge at DFDI Conference

Prime Minister Shehbaz Sharif reaffirmed Pakistan's vision to become a major global tech destination during the Digital Foreign Direct Investment (DFDI) conference in Islamabad, where \$700 million in foreign investment was pledged for the IT sector. The event, which attracted over 75 foreign investors and CEOs from 45 countries, marked a significant step in attracting digital FDI to Pakistan. Highlighting the government's initiatives, PM Shehbaz emphasized the creation of IT parks, incubation centers, and an extensive R&D ecosystem. He also announced a partnership with Huawei to train 200,000 youth in IT skills. With a youthful population of 60% aged between 15-30, Pakistan is poised to harness this digital potential, with IT exports expected to exceed \$4 billion this year. The conference underscored the country's growing role in the global digital economy and its readiness to lead innovation in sectors like agriculture and exports through smart technology.



Pakistan's Tech-Services Exports Continue Strong Growth for 18th Consecutive Month, Defying AI Concerns

Pakistan's tech-service exports have reached a record high of \$342 million for March 2025, marking an 18th consecutive month of growth. This success is particularly notable as global experts predicted that the rise of generative AI tools would reduce demand for low-cost human labor in outsourcing. Despite these concerns,

Pakistan's tech exports, including software development and business-process outsourcing (BPO), have continued to flourish. The 12% month-over-month growth in March highlights the resilience of Pakistan's IT sector, driven by its large, affordable talent pool. While AI may reshape certain aspects of outsourcing, Pakistan's tech industry is proving its ability to adapt, expanding its share in the global market, and further solidifying its position as a leading hub for digital services. This growth trend reflects Pakistan's robust tech ecosystem, promising a bright future for its digital economy.



China and Pakistan Forge Stronger Ties with Focus on 5G, AI, and Data Centres under CPEC

A high-level delegation from China Mobile Communications Corporation (CMCC), led by Chairman Yang Jie, visited Pakistan's Ministry of Information Technology and Telecommunication (MoITT) to enhance digital cooperation under the China-Pakistan Economic Corridor (CPEC). The meeting with Federal Minister Shaza Fatima Khawaja centered around advancing AI-powered, energy-efficient data centers, accelerating 5G technology adoption, and boosting digital connectivity. Both nations also discussed partnerships with major Chinese digital platforms for content hosting and expanding AI education in Pakistan. The collaboration aims to foster regional integration, leveraging digital infrastructure to enhance trade and connectivity, aligning with Pakistan's Digital Vision. The strengthened partnership is poised to improve the technological landscape, benefiting both countries economically and digitally. This move further positions Pakistan as a key player in the digital ecosystem in the region, ensuring its growth in emerging technologies like AI and 5G.

Sindh Revenue Board Achieves 24% April Growth as Fiscal Reforms Drive Record Rs 234.99 Billion in 2024-25 Collections

The Sindh Revenue Board (SRB) has reported an impressive 24% increase in revenue collection for April in the fiscal year 2024-25, signaling continued improvements in the province's tax administration. Monthly revenues reached Rs 23.33 billion, a substantial rise from Rs 18.83 billion in April last year. Cumulatively, SRB has collected Rs 234.99 billion so far this fiscal



year, reflecting a 27% surge compared to Rs 185.26 billion in the same period of 2023-24. This consistent growth is attributed to the SRB's reforms in digital tax infrastructure, enhanced enforcement mechanisms, and improved taxpayer facilitation. The board's performance is seen as a vital contributor to Sindh's financial stability and broader economic development. Officials suggest these gains also align with national goals for increasing provincial autonomy and boosting domestic revenue streams. With steady momentum, SRB is poised to surpass its annual targets, showcasing the effectiveness of fiscal policy innovation and institutional efficiency in driving economic resilience.



KP Audit Uncovers Rs21 Billion in Fake Payments Amid Widening Scandal

Khyber Pakhtunkhwa's massive Rs40 billion financial scandal has deepened, with a recent audit revealing Rs21.37 billion in unverified and suspicious payments for the fiscal year 2023-24. The Director General Audit flagged these payments during a review of the Communications and Works (C&W) Department's financial records, highlighting that the funds were not documented in official ledgers and were missing from the regular cheque issuance logs. The probe also uncovered signs of fake cheque books being used to process transactions outside official procedures. Payments were made without adhering to rules for earnest and retention money, which require phased or delayed disbursement based on project completion and liability periods. Despite being informed in February 2025, the department has failed to offer any substantial clarification, merely stating a response will follow. The scandal reflects severe lapses in financial governance, triggering serious concerns about transparency and oversight in provincial departments. As public scrutiny intensifies, accountability measures are urgently being demanded from watchdogs and civil society.

Pakistan's Soaring Petroleum Imports Widen Trade Deficit with Middle East to Over \$10 Billion in FY25

Pakistan's trade deficit with the Middle East has surged to \$10.5 billion in the first nine months of FY25, reflecting a 10.11%



increase compared to the same period last year. This widening gap is primarily driven by a sharp rise in petroleum imports, particularly crude oil, which rose by 14.61% in volume. While imports soared to \$12.88 billion, exports to the region showed minimal growth, rising only 4.47% to \$2.38 billion. Despite recent free trade agreements with the GCC aimed at reducing trade barriers, the imbalance persists. Exports to key partners like Saudi Arabia and the UAE grew modestly by 6.95% and 8.27%, respectively. However, they lag behind previous fiscal year growth rates of over 40%. Imports from Saudi Arabia declined by 15.15%, providing slight relief. Policymakers are increasingly concerned about the reliance on fuel imports and the limited diversification in export growth, calling for urgent structural reforms to boost trade competitiveness.



Islamabad to Launch Electric Tram Service

Islamabad is gearing up to transform its public transport landscape with the introduction of a modern electric tram service. The Capital Development Authority (CDA), under Chairman Mohammad Ali Randhawa, has formally decided to conduct a comprehensive feasibility study in collaboration with the National Radio Telecommunication Corporation (NRTC), following directives from the Prime Minister and Interior Minister. The tram network will initially focus on four high-density routes, including Rawat to Faisal Mosque via the Expressway and Jinnah Square to Islamabad International Airport along Srinagar Highway. A Chinese consultancy firm is expected to be appointed for the feasibility assessment. This move follows the successful operation of electric buses in the city and reflects Islamabad's growing commitment to eco-friendly urban transport. Officials emphasized the importance of integrating the tram system with existing electric feeder buses and ensuring seamless connectivity. If implemented, the project could significantly reduce traffic congestion, cut carbon emissions, and improve urban mobility for thousands of daily commuters. The CDA aims to finalize the study swiftly, ensuring the project transitions into its execution phase without delay, setting a precedent for sustainable transportation initiatives across Pakistan.

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